

Global Environmental Institute

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Global Environmental Institute (GEI) is a Chinese non-profit, non-governmental organization founded, registered, and based in Beijing, China since 2004. Our mission is to design, execute and support market-based models and policy recommendations that solve environmental problems in order to achieve development that is economically, ecologically and socially sustainable.

GEI's programs cover climate change, low-carbon development, ecological protection, marine conservation, responsible overseas investment, and green finance. In these areas, we work alongside key policymakers, scientists, civil society leaders, local communities, and companies to foster dialogues and innovative solutions to protect the environment and enhance economic opportunity in China and the developing world.

Energy and Climate Change

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Report of Study of PV Development Policies and Investment and Financing Model, Shanxi 2020

Problems and Challenges:

The nearly four decades of development of China's photovoltaic (PV) industry started in 1980s. China's installed PV power generation capacity has exceeded 200 million kilowatts cumulatively by the end of 2019, ranking first in the world for five consecutive years. Meanwhile, the proportion of non-fossil energy consumption reached 15.3%, achieving the target about non-fossil energy in China's Intended Nationally Determined Contributions (INDC) ahead of schedule. President Xi Jinping has openly announced a more ambitious goal of addressing climate change, aiming to peak CO2 emissions by 2030 and striving for carbon neutrality by 2060. In the future, the PV industry will develop in multiplied speed, along with the need for structural adjustment and optimization. Therefore, technology and policy obstacles need to be overcame while a better business and financing model being implemented to promote sustainable investment and healthy development of the PV industry.

GEI, in collaboration with Shanxi Kecheng Collaborative Innovation Institute of Environmental Industry, by using the construction and operation of PV power plants in China as the research object, has systematically worked through the development and effects of China's policies in PV industry. A summary of the model of PV investment and financing in China was also completed to provide references for the development of the PV industry in China and other countries.

Our Effort:

1. Cooperation between GEI and the Shanxi Kecheng Collaborative Innovation Institute of Environmental Industry in 2020 included an analysis of China's solar resource distribution, a comprehensive analysis of the cumulative installed capacity of PV and its spatial layout from 2003-2019, as well as an analysis of the installation and operation of Shanxi's solar generators based on the distribution of Shanxi's solar resources.



2. GEI has comprehensively analyzed over 90 policies relevant to PV from 2005 to 2019. Key policies at key time have been selected for detailed analysis of their impact on China's solar PV market and its industry. Meanwhile, bearing in mind the role of Shanxi Province as an important comprehensive energy base in China, researchers have conducted case studies and reflections on the major construction of PV in Shanxi in different periods of time.

3. According to the result of case studies and statistics analysis, a summary of the model of PV investment and financing in China was completed. The investment models are categorized into "centralized" model and "distributed" model while the financing models include "equity financing", "debt financing" and "other models". In addition, GEI has elaborated the investment and financing models with classic cases selected according to the distribution of PV resources and the actual investment and construction in the industry in Shanxi Province.

1.2 The Application of Renewable Energy Implementation (REI) Toolkit in Guangdong

Problems and Challenges:

At present, the renewable energy power consumption in Guangdong Province reachs 34.4%, exceeding the national average of 27.9%. However, the non-hydropower renewable energy power consumption, which is mere 4.2% 1, is much lower than the national average level of 10.2%. The new focus of renewable energy development in Guangdong Province in the future appears as exploring the non-hydropower renewable energy resources in Guangdong Province, achieving green energy and reducing greenhouse gas emissions while ensuring the rapid economic development of Guangdong Province and the Guangdong-Hong Kong-Macao Greater Bay Area. Therefore, with the application of Renewable Energy Implementation (REI) Toolkit in Guangdong Province, GEI hopes to provide effective planning guidance and policy recommendations for exploring the non-hydropower renewable energy potential in

Guangdong Province, and hopes to address the issues of green and sustainable economic development through market-based means.

1. The 2019 Annual Report on the Monitoring and Evaluation of National Renewable Energy Power Development, National Energy Administration, 2020. http://www.gov.cn/zhengce/zhengceku/2020-05/16/5512148/files/7e32cbb40bd44bd2a75b514650458756.doc

Progress and achievement:

1. The report of 'Study of PV Development Policies and Investment and Financing Model – Shanxi as an example' is finished. The release conference dues in Janurary 2021.

2.Based on the study in 2020, GEI will continue to work with Shanxi Kecheng Collaborative Innovation Institute of Environmental Industry to conduct an in-depth analysis of the solar PV industry according to President Xi Jinping's target of reaching carbon neutrality by 2060.

The Distribution of Roofs in Guangdong Province (by potential PV power.10k kwh / City)



The Proportion of Utilization Among Various Types of Biomass



Our Effort:

1. GEI estimate the areas in Guangdong Province that are suitable for solar PV system installation with the "Spatial Analysis Tool" of the Renewable Energy Implementation Toolkit to in 2020. The research shows that the areas suitable for solar PV development in Guangdong Province are mainly located in the coastal areas, especially in the Pearl River Delta near the coastal center, with an area of about 15.2 billion m² suitable for solar energy development.

2. Based on the analysis of the province's PV resource potential, the project team considered six feasible solar PV application technologies, with a final conclusion that "industrial rooftop PV system" was the technology of the highest priority to be applied.

3. Based on the completion of the biomass power generation research in Guangdong Province in 2019, GEI completed a more in-depth assessment of the potential of biomass resources in Guangdong Province in 2020. The assessment shows that the total biomass resources in Guangdong Province counts 54.3 million tons, with a total technical potential of 53.28 billion kWh and a total heating potential equaling 17.58 billion tons of standard coal. Currently, 21.24 million tons of biomass has already been utilized, which means the total utilization rate of biomass resources in Guangdong province is 39%.

Guangdong province, GEI completed the analysis of economic potential for biomass power generation. As shown in the figure below, in terms of biomass power generation technology, the economic potential of biomass resources is concentrated around Zhanjiang City in western Guangdong and Jieyang-Meizhou region in eastern Guangdong, with the lowest potential in central Guangdong Province; Suixi County tops western Guangdong in economic resource density while Fucheng region tops eastern Guangdong. Among municipal solid waste generated mainly in urban area, only wood waste and wastepaper is considered suitable for direct combustion. Also, the amount of these municipal solid wastes, sewage and sludge, mostly concentrated in urban areas, is much lower than the amount of biomass materials available from agriculture and forestry.

4. Based on the assessment of biomass resource potential in

Progress and achievement:

1. Conducting and releasing the Report on Solar PV Potential and Planning Implementation in Guangdong Province.

2. Conducting and releasing the Report on Biomass Potential and Planning Implementation in Guangdong Province.

1.3

China-ASEAN Cooperation on Renewable Energy Development

The density map of economic potential of direct biomass conbustion (In comparison, the cost of coal power is 330¥/MWh)



Background:

Rapid economic development and industrialization will inevitably bring about a fast increase in energy demand among Southeast Asian countries. Although most ASEAN countries made nationally intended contributions (NDCs) on renewable energy development, there still remain large political (willingness and policy), technical and finance gaps for these countries to promote and mainstream renewable energy. And this project aims to contribute to filling these gaps by empowering local officials and experts with renewable energy development planning capacities, making financial analysis for identified potentially bankable renewable energy projects, and bridging financial resources to invest in these projects. In 2020, apart from continuing the bilateral cooperation with Myanmar, we



have signed two MoUs with Indonesia' s Institute for Essential Services Reform (IESR) and Vietnam' s Green Innovation and Development Centre (GreenID), to further our collaboration on renewable energy development.

Project Progress:

Myanmar

In 2020, we completed a draft analysis report entitled 'Solar Power Resources Potential and Pipeline of Potential Bankable Solar PV Projects in Myanmar' . In this report, we conducted nation-wide and region-wide (Mandalay City) solar PV technical potential assessment, as well as business model and financial analysis for potential bankable projects in Myanmar, include a rooftop solar project at the Mandalay Industrial Zone, a large solar power supply to replace diesel generators for aquaculture bases in southern Myanmar, and typical mini off-grid solar PV system for rural communities.





Indonesia

In Indonesia, GEI signed an MOU with IESR in March, to collaborate on solar power pilot programs, in settings that include standard urban areas, rural areas with electricity access, and isolated island areas without electricity in Indonesia. In May 2020, GEI and Beijing University of Civil Engineering and Architecture (BUCEA) organized two online training workshops for IESR's experts to introduce the Renewable Energy Implementation toolkit and its methodology, steps and specific tools. By November, with the support and guidance from GEI and BUCEA, the IESR has completed the nationwide solar PV technical potential assessment in Indonesia.

Vietnam

Quang Tri

Dong Thap

Bac Lien

Considering the solar power potential and energy development needs in Vietnam's provinces, GEI and Vietnam's GreenID signed an MoU in August 2020, and agreed upon a capacity building work plan to collaborate on provincial solar power planning by taking Bac Lieu, Dong Thap and Quang Tri province as example. We are now working with GreenID and BUCEA, to analyze (renewable) energy development policies and investment environment in Vietnam, as well as to assess rooftop solar PV potential in the three provinces by using Artificial Intelligence (AI) technology.

Project Findings (achievements):

Myanmar

The assessment results of Mandalay show that the city has 225,069 rooftops with a total area of 17,681,298 m². It is estimated that the solar PV capacity is 3.8 GWp, and the annual power generation potential can reach up to 5,890 GWh, which means that theoretically only 5% of the rooftop PV potential would be needed to meet the city's electricity consumption for all residents (300 GWh/year for 1.4 million citizens).

• Mandalay

The preliminary assessment results of nationwide solar PV technical potential indicate that: 1) Indonesia has estimated 234,984 km2 suitable land for solar PV installation, which accounts for 12% of the country's total land area; 2) the total solar PV capacity potential is estimated to be 9.6 TWp; 3) and the annual power generation potential can reach up to 13,157 TWh/year. As shown in the map, among 34 provinces of Indonesia, the greatest solar power technical potential lies in the North and South of Sumatra, Central and South of Kalimantan, Maluku, and Papua.

Indonesia PV Generation Potential



The Financial Modes of Mandalay Industrial Zone Pilot Project

To develop a pipeline of potential bankable solar PV project, we then selected the Mandalay Industrial Zone for further financial analysis. According to the existing solar PV market conditions, we designed business models for three different financing options: the host country's government, a

commercial bank, and an international impact investing institution (as shown in the upper chart). Moreover, in light of the increasing development of the solar PV market in Myanmar, we have also designed a financial lease-based business model (as shown in the lower chart).



The Business Model of Finance Lease



AI-generated rooftop mapping of Mandalay City





Overseas Investment, Trade, and the Environment

Combatting Global Illegal Wildlife Trade

Promoting China's Infrastructure Development and Sustainable Investment in the Greater Mekong

The Exchange and Cooperation between China and Latin America on Agribusiness and Deforestation



2.1

Combatting Global Illegal Wildlife Trade

Existing Problems:

The global illegal wildlife trade is a major threat to wildlife and biodiversity conservation, with supply chains involving multiple source countries, transit countries and consumer countries. China, as one of the key countries in the chain to crack down on the global illegal wildlife trade, has taken strong policy enforcement measures domestically, such as announcing a complete halt to the processing and sale of ivory and products by December 31, 2017. However, GEI found through preliminary research that the measures taken domestically by China are still limited in combating the transnational illegal wildlife trade due to a lack of coordination and cooperation in policy and enforcement with other supply chain countries and regions. In addition, domestic laws and regulations related to wildlife medicine and cross-sectoral manage-

ment collaboration need to be improved, which also potentially hinders the effective management of combating illegal wildlife trade.

Under the 2020 COVID-19 pandemic, it has become a social consensus at home and abroad to strengthen the fight against illegal wildlife trade. GEI continues to coordinate exchanges and cooperation between China and other key supply chain countries and regions and promotes law enforcement capacity building. It has begun to explore demonstration work for border communities to participate in combating illegal cross-border wildlife trade. Suggestions and suggestions on legislation and policies related to combating illegal wildlife trade at the international level.

What We Did in 2020:

Demonstration of community participation in combating illegal trade in cross-border wildlife: through preliminary feasibility studies, local partners were identified and two communities in Yunnan Province were identified for upcoming community demonstration projects, namely Shibantang, Mingguang Township Autonomous Village, Tengchong City, on the China-Myanmar border, and Namman Village, Longmen Village Committee, Shangyong Township, Mengla County, on the China-Lao border. will provide support for sustainable livelihood development through the community agreement conservation model, raise community awareness about wildlife conservation, and mobilize communities to support the local protected area administration's efforts to combat illegal trade in cross-border wildlife through autonomous commitments, participation in patrols, and coordination and liaison.

Domestic Legislative Policy Analysis and Recommendations: we completed a preliminary study on the "Process and Analysis of Wildlife Medicine Management" and drew recommendations on the next step of policy promotion related to the sustainable management of wildlife medicine through expert seminars; collected information and opinions through workshops, special studies and public questionnaires, etc. We have collected information and opinions through workshops, studies and public questionnaires, and made suggestions on the Draft National Key Wildlife Protection List and the Draft Revised Wildlife Protection Law; joined the Global Initiative to End Wildlife Crime (GIEWC) and participated in promoting the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the United Nations Convention against Transnational Organized Crime (UNTOC), in order to fight against international wildlife crime.

Capacity Building for Wildlife Law Enforcement Officers in China and Other Countries: in cooperation with Nanjing Forest Police College, a textbook on "Capacity Building for Law Enforcement against International Wildlife Crime" has been developed, an agenda for law enforcement training has been prepared, and invitations for training have been extended to wildlife authorities and law enforcement agencies in relevant supply chain priority countries. The training schedule will be pushed back to 2021 due to the impact of the pandemic. GEI is currently exploring with Nanjing Forest Police College the feasibility of producing online law enforcement capacity building courseware. Bilateral policy dialogues between China and other countries: communication is maintained with wildlife authorities in China, Myanmar, Cambodia, Cameroon and other countries to explore the feasibility of conducting bilateral policy dialogues between China and other countries. Due to the impact of the pandemic, the bilateral policy exchange activities on China-Myanmar and China-Cambodia cooperation in combating illegal wildlife trade originally planned to be supported in 2020 were postponed.

Prospects:

In the next three years, we will continue to implement, improve and expand the demonstration project on border community participation in combating illegal cross-border wildlife trade, and strengthen the fight against illegal cross-border wildlife trade between China and Myanmar and China and Laos from the community level; conduct more in-depth research on policy and legislation on wildlife for medicine, food and public health, and contribute to the development of legislation and policies related to combating illegal wildlife trade at the domestic and international levels We also assist in policy dialogues between China and relevant government authorities in Myanmar, Cambodia, Cameroon and Congo (Brazzaville) to promote bilateral cooperation in combating wildlife trade; jointly promote online and offline law enforcement capacity building training with Nanjing Forest Police Academy and other institutions to promote joint law enforcement actions between China and other countries and regions in combating wildlife crime. **2.2** Promoting China's Infrastructure Development and Sustainable Investment in the Greater Mekong

Existing Problems:

The rapid economic development in the Mekong region has increased the demand for infrastructure, attracting countries from all over the world, including China, to invest in infrastructure construction in the Mekong region. Through initiatives and mechanisms such as "One Belt, One Road" and "Lancang-Mekong Cooperation," Chinese companies will expand their cooperation with Mekong countries and continue to invest in infrastructure projects, including roads, railroads, hydropower, etc. Nevertheless, due to the relative lack of management and supervision capacity of infrastructure projects in the Mekong countries, the projects often face environmental and social risks, causing many negative impacts on the environment and society.

To address the environmental and social risks associated with infrastructure construction in the Mekong River Basin, GEI has conducted policy studies on the sustainable development of Chinese overseas investments based in China and made policy recommendations to promote Chinese companies and financial institutions to improve environmental standards and avoid environmental risks in their economic activities in the Mekong region, and to promote the sustainable development of infrastructure construction in the Mekong region. In addition, GEI aims to develop a rapid evaluation tool for financial institutions on project environmental risks to improve their ability to identify and analyze project environmental risks in the early assessment stage of projects.

What We Did in 2020:

GEI worked with the Center for Environmental and Economic Policy Research (CEEPR) of the Ministry of Ecology and Environment (MOE) to evaluate the policy effects of the "Environmental Protection Guidelines for Foreign Investment Cooperation" (Guidelines) jointly issued by the Ministry of Commerce and the Ministry of Environmental Protection in 2013. We visited Hunan Construction Group, Jiangxi Water Conservancy and Hydropower Construction Co., Ltd, Zhongding International Construction Group Co., Ltd, Jiangxi China Coal Construction Group Co. and Qingdao Construction Group Co. to understand the environmental and social considerations and challenges of different types of enterprises in overseas infrastructure construction and investment. On this basis, GEI and the Political Research Center jointly revised and improved the original version of the Guide, inviting experts from the National Development and Reform Commission, the Ministry of Commerce, the Ministry of Ecology and Environment and the State-owned Assets Supervision and Administration Commission to participate in the workshop. At present, the relevant report has been completed and submitted to the Ministry of Ecology and Environment for review.

In addition, GEI has promoted the trial version of the Rapid Environmental Risk Assessment Tool to financial practitioners such as Export-Import Bank of China, Huaxia Bank and Hengfeng Bank, solicited suggestions on the design, use and promotion of the tool, and formulated the next improvement plan for the tool.



Results and Progress:

1. Through literature research, enterprise interviews and case analysis, policy recommendations on further strengthening ecological environmental protection for China's outbound investment cooperation were proposed and submitted to the Ministry of Ecology and Environment for internal review. 2. Based on the expert workshops, literature research, enterprise interviews and case studies, the revision of the original version of the Guidelines and the revised description of the Guidelines on Environmental Protection for China's Outbound Investment Cooperation were completed.

3. Based on the recommendation of the rapid environmental risk evaluation tool, the next step of the tool improvement plan was proposed, which will improve the geographical coverage of the tool, the richness of the layers and the ecological risk quantification model.

The Exchange and Cooperation between China and Latin America on Agribusiness and Deforestation

Existing Problems:

China has become the world's largest importer of agricultural products, importing 10% of global agricultural trade. For bulk agricultural products (e.g., grains and meat), China has become even more of a pure importer. In the case of soybeans, for example, data from recent years show that China is the world's largest soybean demander. As of 2018, China's soybean consumption had reached 62% of the global soybean market share; in 2019, approximately 57.67 million tons of the 88.51 million tons imported by China came from Brazil, equivalent to 65.2% of China's total soybean imports during the same period. Thus, it can be seen that the import of bulk agricultural products in quality and quantity plays a very important impact on China's food safety and food and agriculture security.

However, the increase in crop acreage has led to the fact that bulk agricultural exporting countries are now facing various environmental problems such as vegetation destruction and wildlife habitat destruction. For example, in countries such as Brazil and Argentina, former rainforests, dry forests and grasslands have been converted into land for field cultivation and cattle ranching, making soybeans and beef agricultural products at risk of deforestation. In addition, agricultural deforestation is directly linked to climate change and biodiversity loss. Data show that beef and soybean production in Brazil and Argentina has led to the disappearance of two-thirds of recorded species there as of 2018. Deforestation and agricultural production on a global scale also contribute to greenhouse gas emissions, accounting for approximately 24% of total global greenhouse gas emissions. As a result, some policy makers in Latin American countries and regions have begun to focus on and develop more sustainable agricultural production models and laws and regulations that do not harm the environment. Local agricultural producers and operators are also becoming aware of the importance of environmental protection and are taking advantage of local geography to develop sustainable agriculture (e.g., "carbon-neutral beef"). In order to support innovation and reform in Latin American countries, and to accelerate the solution of environmental damage caused by agricultural exports in Latin America, GEI hopes to find sustainable agricultural production methods for upstream agricultural producers and improve local ecological laws and regulations through research on the downstream consumer side of the supply chain.

What We Did in 2020:

1. China-Latin America Agricultural Trade: A Quantitative Study of Ecological Impacts in Latin America

In July 2020, GEI signed a collaborative research agreement with Global Canopy, a UK-based organization, to conduct a study of data on "environmental risks to China.

2. China-Latin America Agricultural Trade: A Qualitative Study of Ecological Impacts in Latin America

In 2020, GEI interviewed more than 30 stakeholders, including research institutions, NGOs, Brazilian government, banks, and companies, including The Food, Agriculture, Biodiversity, Land-Use, and Energy (FABLE), The Nature Conservancy (TNC), the Agricultural Counsellor of the Brazilian Ambassador in China, Rabobank and COFCO.

3. Reporting Qualitative and Quantitative Findings

In November 2020, GEI participated in the GLOBAL FOREST COALITION online conference and presented "Sustainability Concerns in China-Latin American Agribusiness from a Demand-side Perspective, with a Focus on China's Policy" on the issue of deforestation in China-Latin America trade. business from a Demand-side Perspective, with a Focus on China's Policy".

In December 2020, he participated in a seminar organized by the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters, and presented "China's Roles and Responsibilities in China-Latin America Deforestation Trade" on China's role in the deforestation issue. China's Roles in and Exposure to Risks from the Soft Commodities Investment and Trade from the Perspective of China's Local Trade in Deforestation". Perspective of China's Local NGOs with a Focus on Latin America".

4. Pre-launch of the Biodiversity Business Forum

In December 2012, we successfully applied for the qualification to host the CBD Business Forum; and according to the negotiation process of CBD, we negotiated with the Foreign Cooperation and Exchange Center of the Ministry of Ecology and Environment and set the cooperation agenda, including assisting in the establishment of the "China Business Biodiversity Alliance", hosting the CBD Business Parallel Forum and possible research work.



Prospects:

In 2021, GEI will assist in organizing parallel events of the COP15 Business and Biodiversity Forum; promote policy dialogue and exchange between countries up and down the supply chain through case studies and demonstrations, and promote sustainable development of bulk agricultural trade between China and Latin American countries.

Promoting China's Sustainable Investment in Africa and Mitigating the Impact of Overseas Investment for the Local Forest Ecology

Existing Problems:

For the past 15 years, China's Outward Foreign Direct Investment (OFDI) has grown steadily and has become one of the world's top three countries with the biggest foreign investment. Although it only accounts for 3% of the whole foreign investment, Chinese OFDI in Africa has increased rapidly in recent years. Major foreign investments in Africa, including Chinese OFDI, are concentrated in infrastructure, mining, agriculture, and forestry. These industries relate to land use are probably linked to many environmental problems, such as forest degradation. However, most African countries' forest and environmental governance systems are incomplete and lack a sustainable forest management framework. As a result, these countries are facing tremendous challenges, such as illegal logging. Meanwhile, the rapid development of infrastructure, mining, and agriculture industries also threatens the local forest ecosystem and the livelihood development of forestry communities.

What We Did in 2020:

Cooperating with local partners in the Republic of Cameroon and the Republic of the Congo, we organized capacity-building training for local civil society organizations (CSO) to help them better understand Chinese investments in Africa and policies related to the environmental and social impact of Chinese overseas investments. The training also aims at how to build better communication between CSOs and companies. Due to the impact of Covid-19, the training in both countries was conducted online. 18 CSO leaders from the Republic of Cameroon and 23 from the Republic of the Congo attended the training.

We studied the case of a Bauxite mining operation in Atewa Forest, Ghana. We contacted the local communities and published articles related to this case on some media platforms to inform the public about the local environmental impact of the mining in Atewa Forest that Chinese enterprises and banks are associated with.

Working alongside Greenovation Hub, China Banking Association, and other institutions, we designed and developed Sustainable Finance and Biodiversity training courses for Chinese financial organizations. Hundreds of people participated in these three online capacity-building courses. Participants were from domestic financial institutions, including Hua Xia Bank Cp., Ltd and Bank of Huzhou, financial regulators, international multilateral International financial institutions, and other NGOs and research institutions in the topic.

Prospects:

In the future, GEI will continue to focus on financial institutions' biodiversity risk management and contribute more risk management toolkits and capacity-building training for these institutions to help them better understand and avoid biodiversity risks in OFDI and then mitigate the impact of financial activities on the local ecological environment. In addition, GEI will also pay attention to Chinese companies' environmental and social behavior investing in Africa. We aim to help local civil society organizations better communicate with Chinese investment companies and reduce misunderstandings and confrontations. Cooperating with relevant industry associations, we hope to provide environmental and social risk management guidance for Chinese companies.

Ecosystem Conservation and Community Development

The Sustainable Forest Management Project in Xining

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The Community Ecological Conservation Center of Maozhuang Village, Sanjiangyuan

Promoting Ecological Service Development and Ecological Civilization Construction

Promoting the Ningxia Yunwushan Agreement Reserve to Help Ecologically Alleviate Poverty in the Loess Plateau

Climate Smart Livelihood Space Project for Mountain Communities in Grand Canyon of Nujiang River, Northwest Yunnan

Study on the Legal Shortcomings and Enforcement Mechanism of the "Total Ban on Wildlife Consumption"

Study on the Determined Contribution of Non-state Actors to Biodiversity and Cooperation between China and Africa

The Establishment of East and Southeast Asia Community Conservation Network (EASACCN)

3.1

The Sustainable Forest Management Project in Xining



Background:

Northwest China has become the international gateway towards Europe and Asia with the Belt and Road Initiative brought out by China. Xining, as the capital city of Qinghai Province, will have a more important role in international cooperation. This brings important opportunities to the economic and social development as well as the construction of the ecological civilization in Xining. As one of the most important projects that support the construction of ecological civilization in Qinghai Province, the Mont Nanbei (South and north mountains) Greening Project has operated for more than 30 years. The project has significantly improved the forest coverage rate of the region, but it's also faced with problems including high stand density index, lack of structural complexity, ambiguous layers and the lag of forestry and etc. Therefore, GEI has participated in and won the bidding of the "Pack 1 Report of the Asian Development Bank (ADB) Sustainable Forest Management Project in Xining: the feasibility report" held by the Qinghai Provincial Government and has started its research on the project of ADB's Sustainable Forest Management in Xining.

Progress:

With the assistance of the technical assistance experts invited from ADB, GEI produced "The Feasibility Report on the Qinghai Sub-Project of the Project of ADB's Ecological Management and Environment Reservation of the Belt and Road Regions" and attended the early appraisal meeting and mid-time appraisal meeting organized by the Project Management Office of the State Administration of Forestry and Grassland about the ADB loaned projects. On the meetings, GEI reported the research result of the Qinghai sub-project and edited the report based on the experts' suggestions. The feasibility report will go through final appraisal meeting in March.

The forest ecosystem and environment will be efficiently recovered and improved by the project, with an increase of the capacity of the forest ecosystem of dealing with and alleviating Climate Change. The construction of forest ecosystem healing and recreational facilities as well as the proper utilization of the landscape resources could contribute to the local economy and the alleviation of poverty. It could also promote the ecological conservation and recover as well as economic and social sustainable development of the Belt and Road regions, especially the ecotone, biodiversity areas and areas with high ecological value in order to provide ecological support to the implementation of the Belt and Road Initiative. Meanwhile, the culture and traditions of the ethnic minorities in the region could be preserved. More job opportunities and better life standard would be provided to the citizens which help specially to improve the living environment of the minorities in the region.

After scientific research and analysis, we believe that the Qinghai sub-project will be able to achieve efficiently the preservation of the forest and landscape resources as well as biodiversity and the improvement of ecological environment which provides strong support to the stability of the forestland society and significant ecological and social benefit as well as considerable indirect economic benefit. Thus, the project is not only necessary, but also feasible.

Prospects:

After the project gets approved, we suggest the local administration to focus on several aspects: to manage and supervise the project quality; to improve the public awareness of and participation in the project through demonstration and training; to actively explore more efficient technics and management model and to improve its capacity by learning from the project demonstration. Meanwhile, the community is an essential part of the project. Thus, the connection with the community should be paid attention to and the interest of the community needs to be taken into consideration to promote the efficiency of the preservation and achieve a win-win result for economy, society and the environment.

3.2

The Construction of Ecosystem Service Development Pilot Project in Qilian Mountain National Park

Background:

The Qilianshan National Park lies on the boundary between Gansu Province and Qinghai Province, covering 5.0255 million hectares in total. It is an important waterhead for the Yellow River. The communities in the area are consisted mostly with ethnic minorities who lived on traditional agriculture and planting with single economic structure and outdated production. The construction of Qilianshan National Park requires not only to solve the problem of ecological quality, low management efficiency and etc., but also to upgrade the traditional single production of the communities, to help them

develop and alleviate poverty and to transform their production. According to the "General Planning of the Qilianshan National Park", the national park will push forward the transformation of the community lifestyle and production to promote the green development in Qilianshan area; it'll also train the community residents, encourage the community or enterprises to participate in the franchising projects. The conservation of the national park and its co-development with the local communities has become an important goal and a major task for the national parks reform. It even determines to a certain extent whether the construction of the national park will succeed.

Progress:

GEI has cooperated deeply with Qilianshan National Park and has started the eco-service economy demonstration project of Qilianshan National Park in accordance with the pilot system of the park. Based on the research and analysis of the resources condition and traditional culture of Qilianshan mountain, GEI set the important entrance communities, Laolongwan village of





GEI organized experts in ecological tourism and nature education and opened 2 demonstration communities. Based on the communities, GEI finished The Design and Planning of the Routes of Ecological Tourism of the Portal Communities of Qilianshan National Park, The Brochure of Design and Practice of Ecological Tourism of Portal Communities of Qilianshan National Park and The Design of Nature Education Courses of Portal Communities of Mont Qilianshan. We also crafted cards, signs, guidepost of ecotourism routes and nature educational route and established them in the demonstration communities. Meanwhile, we co-host the training program of "Village Party Branch & Committee + eco-service economy" to the portal communities of Mont Qilianshan National Park to share GEI's experience, the new co-management model of "Village Party Branch & Committee +" and nature education, etc. GEI also donated 2 sets of realia for nature education to Laolongwan village and Guomi village. We also finished The Feasibility Report of the Construction Project of the Nature Education Classes in Qilian County and Menyuan County in the Qinghai Side of Qilianshan National Park under the invitation of Qilianshan National Park.

Prospects:

The participation of portal communities of Qilianshan National Park to the ecological conservation of the national park and the eco-service economic development have set an example of the new model for cooperation between national parks and communities on ecological tourism and nature education. Not only could it improve the serving ability of the community residents through training, but also improve their capacity of explaining as tour guide. In that way, the local communities become a major part of the development of the ecotourism and serve as a demonstration sample of the community participating model and franchise business for national parks.



The Community Ecological Conservation Center of Maozhuang Village, Sanjiangyuan

conservation measures for sustainable development of ecological conservation and community economy, and to provide a reference and model for the development of ecological conservation and poverty alleviation policies in Qinghai.

Background:

Since 2013, GEI has carried out the Community Conservation Concession Agreement (CCCA) and eco-service pilot projects in more than 10 communities, including Maozhuang village, Sanjiangyuan. GEI has explored combining community conservation actions such as ecological patrols, water monitoring, and trash cleanup with sustainable livelihood development such as traditional crafts and ecotourism to form a synergistic model that balances conservation and development. Based on years of practice and with the support of the local government, GEI, Nangqian county, Maozhuang township Benkang Limin Cooperative and Half Light Women's Craft Cooperative jointly initiated the establishment of the "Sanjiangyuan Community Agreement Conservation Training and Capacity Building Center" in Maozhuang village. The Center aims to provide training and capacity building for the Sanjiangyuan and even Qinghai communities. GEI is committed to exploring a set of

Progress:

Based on our work in 2019, we carried out further refinement of the reception center of Maozhuang Township Benkang Limin Cooperative according to the renovation design plan developed by experts. With the help of volunteers and local cooperatives, we also designed project descriptions of ecological protection and ecotourism in Maozhuang Township and display boards of flora, fauna and grassland ecosystems as well as ecotourism guides. The Ecotourism Route Design of Maozhuang Township was also edited and completed in 2020. We also cooperated with professional travel agencies to provide professional training for local young people in Maozhuang Township on ecotourism services, including tent installation, tourism services, and cooking skills, and invited a 12-member ecotourism team to experience ecotourism in Maozhuang Township based on the planned ecotourism itinerary, which achieved good results. In order to better understand and learn the operation mode of ecotourism, the project visited successful cases of ecotourism and nature education in Guangxi and Yunnan, such as the study tour of the nature education camp operated by the community in Qunan; the design and operation of nature education and ecotourism experience in Xishuangbanna Botanical Garden; and the study of nature education and ecotourism experience in Baihualing Village Cooperative.



Prospects:

At present, the ecotourism in Maozhuang Township has made good progress in various aspects such as infrastructure construction, ecotourism route planning, and community capacity building training. From the feedback of the cooperative travel agency and the 12-person tour experience group, we also understand that the ecotourism of Maozhuang Township can attract part of the high-end ecotourism market and can have certain development in the future. However, at present, the reception capacity of Maozhuang Township still needs to be improved, especially the infrastructure construction of the reception center and personnel service training will become the key part of the future construction. We hope that the reception center of Maozhuang village Penkang Limin Cooperative can become an environmental protection education base integrating nature education, ecotourism and community capacity building, and become a demonstration of ecotourism in Sanjiangyuan.

Promoting Ecological Service Development and Ecological Civilization Construction

Background:

GEI applied to the China Green Carbon Foundation for the Ecological Conservation and Community Development for a strategic project - "Practice and Promotion of Ecological Service-based Economic Development Model in Western Chinese Communities" in 2017. The project base itself on practical projects in Qinghai, Ningxia, Sichuan, Yunnan, etc. to promote the practice of eco-service-based economy. Through the project, we supported 19 NGOs and research institutions in western China to build capacity and train on community protocols for conservation. We also cooperated with Renmin University of China to conduct preliminary research on the basis of ecological service economy based on the demonstration site in Qinghai. The feasibility and innovation of eco-service-based economy were initially demonstrated. On this basis, we further improve the basic theory of the ecological service economy development model from both theory and practice. The study improves the supply



capacity of ecological products to the reserves and their surrounding ecosystems, establishes a basic mechanism for social enterprises to participate in the ecological service economy development model, improves public awareness and participation in the ecological service economy development model, and develops an ecological service economy "model special zone" based on China's national park system. We will build a perfect ecological service economy development model in China and promote the construction of economic infrastructure for ecological civilization.

Progress:

1. GEI collaborated with Professor Qiu Huanguang's team at Renmin University of China to further improve the theoretical framework of the ecological service economy development model. GEI also organized an online seminar on "Biodiversity Conservation in Action: Theory and Practice of Ecological Service Economy" for experts, scholars and communities to share GEI's theory of ecological service economy, publish academic papers, and discuss in depth the practical cases, the transformation of natural values, the mechanism of realizing the value of ecological products and the mechanism for community participation.

2. GEI has supported the local practice of ecological service economy development model in Maozhuang village of Nangqian County, Chagannur of Inner Mongolia, Guoqie Temple of Nangqian County and Qilianshan Mountains of Qinghai Province, including the infrastructure of training center, preparation of conservation manual, patrol and poaching prevention, and design of eco-tourism display, etc.

3. GEI has explored the basic mechanism for social enterprises to participate in ecological service-based economic development. With the assistance of experts and volunteers, GEI completed a study on National Park Concessions, which proposes the development of concessions in Qilian Mountain National Park through the analysis of domestic and international concession cases. At the same time, we also conducted the first ecotourism experience in Sanjiangyuan in conjunction with Otto Travel, which was highly valued by local government departments as a practice of concessions.

Prospects:

We expect to promote the application and replication of ecological service-based economy, establish a broader network of community service-based economy, and organize regular training for experts and scholars, government, and communities. The promotion of ecological service-based economic development models for national park gateway communities can increase community participation in conservation and enhance community economic income. Meanwhile, we will conduct research and demonstration of national park concessions as a highlight of the national park implementation process.

Promoting the Ningxia Yunwushan Agreement Reserve to Help Ecologically Alleviate Poverty in the Loess Plateau

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Background:

Yunwushan National Nature Reserve is located in Guyuan, Ningxia, in the semi-arid area of the Loess Hills in southern Ningxia. With only hillside cultivated and little rainfall in the area, the local community mainly relies on grassland herding for their livelihood, which brings only meager income. However, the establishment of the reserve and the region-wide grazing ban policy has increased production costs, forcing herders to change their farming methods and making their livelihoods increasingly difficult. Since 2011, GEI has been working with the Ningxia Yunwushan National Nature Reserve Administration, supporting the reserve to sign a Grassland Management Agreement with the surrounding villagers, encouraging them to participate in the reserve's patrol work. In return, they received patrol fees, pasture seeds and production tools. The "agreement protection mechanism" allows the stakeholders of grassland protection (the reserve and the surrounding villagers) to act together to alleviate the conflict between grassland protection and villagers' grazing, and to expand the actual protection area of Yunwushan Grassland Reserve. The community development fund can also help villagers develop their livelihoods, change their production methods, improve their productivity and increase their income.

Progress:

2020 is the ninth year of the Yunwushan CCCA Project. On the basis of the community conservation area, we have included the land near Houchuan Village into the protection, expanding the community conservation area to 6,660 hectares in the reserve and 1,594.56 hectares outside the reserve. In addition, the number of model households under the agreement protection has increased from 28 to 31, and the grassland management agreement has been renewed with the model households again.

GEI also held a training workshop on CCCA and eco-service-based economy together with Yunwushan Reserve Administration. A total of 60 participants, including reserve cadres and staff, ecological rangers and agreement model households, participate in this training workshop. The training was mainly about reserve ecological monitoring and patrol, ecological protection and economic development and technics including livestock breeding, forage allocation, red plum apricot planting and honeybee breeding. In addition to capacity building, GEI provided funds to support local communities to develop red plum apricot planting (11,200 seedlings, 250 mu of red plum apricot planting) and Chinese native bee breeding (20 boxes) to help develop special industries and increase economic income.

3.6

Climate Smart Livelihood Space Project for Mountain Communities in Grand Canyon of Nujiang River, Northwest Yunnan

Background:

GEI, in partnership with the International Centre for Integrated Mountain Development (ICIMOD) and with support from the United Nations Development Programme (UNDP) Global Environment Facility Small Grants Programme (GEF-SGP), launched an emission reduction and livelihood improvement project in Nujiang Lisu Autonomous Prefecture, Yunnan Province, in July 2019. The project aims to foster environmental awareness among villagers in ethnic minority areas, enhance environmental protection capabilities, and create healthy, energy-efficient, low-carbon living and livelihood spaces through the design and promotion of clean and intensive air return stoves, while cooperating with the local government and forestry departments to develop pilot new three-dimensional agriculture and smart livelihood improvement projects. It also aims at effectively implementing the new development model of "precise alleviation of poverty" and "ecological alleviation of poverty ".

Progress:

In 2020, the second year of the Community Livelihoods Improvement Project in Nujiang Canyon Area, we have done the following work:

1. With the support of the local government represented by Nujiang Forestry and Grass Bureau and Fugong County Forestry and Grass Bureau, the project team communicated and negotiated with multi-stakeholders, including other partners under the GEF-SGP project, Gaoligong Mountain Reserve Administration, and representatives of energy-saving stove design and production enterprises, to jointly design low-carbon emission reduction and optimized energy use structure solutions such as energy-saving wood stove promotion and electricity instead of salary.

Prospect:

As one of GEI's longest-running CCCA projects, the Yunwushan Agreement Conservation Project is in its ninth year. We hope this project can serve as a model for community participation in ecological conservation and eco-service-based economic development. We expect it to provide reference for other communities around the Loess Plateau Reserve. 2. With project support and corporate matching funds, project research was conducted in four villages in three townships of Fugong County (Wangjidu, Mieluo, Yaduo and Yaping Villages), and with the support of the local government and the village committee team, the four villages were presented with "rural fire heating table stoves with wood and coal dual-use return stoves" designed based on local living habits and incorporating Lisu elements. " 110 units and reached participation intentions for later ecological protection and development of sustainable livelihoods.

3. During the epidemic, the project team communicated with the village committee team and demonstration households at the project site to discuss matters related to fuelwood forest and cash crop planting, and reached a cooperation intention with the Forestry and Grass Bureau of Fugong County to cooperate with the greening indexes of the forestry and grass department in conjunction with the "Nujiang Flower Valley" construction project, to obtain information through field research, and to participate in the community's capacity building. For example, we spread the knowledge of pest and disease control of flower and corps and late-term management, etc. We will also conduct targeted capacity building activities for local cooperatives and participating households to improve the community's ability to manage low carbon emission reduction.

4. Based on natural resources and ecological conditions, the project team, with the support of the Nujiang Administration of Forestry and Grassland, conducted "Sustainable Livelihoods



Prospects:

The local government, including the forestry and grass departments of Nujiang Prefecture and Fugong County, the Nujiang Administration of Gaoligong Mountain National Nature Reserve and its branches, and the local leaders at all levels in the three townships and four villages in the project site have cooperated with and supported the implementation of our project. Their effort has laid the foundation for the continuation and further development of the project.





building and demonstration to improve the capacity of the communities in Nujiang to develop themselves and cope with environmental risks, forming a multi-faceted synergy of "government + business + NGO + community". The project will help to develop a sustainable path of ecological poverty alleviation.

For the next step, we will carry out project work on the following levels:

1. We will conduct field visits in collaboration with representatives of ICIMOD and its Myanmar project partners to communicate with participating villagers on the use of energy-saving stoves, and further discussions will be held on activities to extend energy-saving stoves to Myanmar villages that have established border friendship villages with Fugong County to jointly promote South-South cooperation at the levels of climate change mitigation and joint cross-border conservation.



Study on the Legal Shortcomings and **Enforcement Mechanism of the "Total** Ban on Wildlife Consumption "



Background:

The new coronavirus outbreak in Wuhan at the end of 2019 has spread globally. Numerous scientific studies have shown that the new coronavirus is infected from some kind of animal to human. It is most likely caused by indiscriminate consumption of wild animals by humans. Indiscriminate consumption of wild animals, on the one hand, leads to the extinction of many wild animal species, breaking through the ecological security red line; on the other hand, it also leads to a higher risk of transmission of zoonotic viruses, destroying the bottom line of human public health security. At present, the State Council and its relevant departments and provinces, autonomous regions and municipalities directly under the Central Government, based on this decision and relevant laws, ought to develop and adjust the relevant lists and supporting regulations, but the game of multiple stakeholders has just begun. This epidemic provides a historic opportunity to reform the long-accumulated legal shortcomings related to wildlife consumption, to completely change the wildlife consumption chaos, and to build ecological safety and public health security.

Progress:

In response to a series of problems in legislation, law enforcement, and supervision exposed by the indiscriminate consumption of wild animals in China, GEI will, through a series of studies, propose relevant legislative amendments to improve and perfect the laws and regulations of the "total ban on wildlife consumption" and the system of law enforcement and supervision, to repairs the crucial loophole, and promote a comprehensive ban on endangered and nationally protected We will also propose amendments to improve the laws, regulations, enforcement and supervision system of the "total ban on wildlife consumption", to close the key loopholes. We also strive to achieve a total ban on the consumption and medicinal use of endangered and nationally protected wild animals to ensure ecological and public health safety. We will carry out research work in three areas: 1. To clarify the flaws and shortcomings of the current law on "total ban on wildlife consumption", and to propose the organizational structure of the laws, enforcement and organizational framework for regulating illegal and indiscriminate wildlife consumption. At the beginning of the year, we submitted two rounds of comments on the Wildlife Protection Law with several partners; in November, we conducted an online discussion on the Draft Revised Wildlife Protection Law, resulting in a document entitled "GEI's Proposal on the Draft Revised Wildlife Protection Law."

2. To sort out the list of national and provincial priority species and CITES endangered animals so that we can provide scientific basis and suggestions from the perspective of conservation for the upcoming adjustment and formulation of the "white list" of terrestrial and aquatic wild animals for consumption.

3. To analyze the policy and management process of wildlife medicine in China and produced a report "Analysis of the Policy and Management Process of Wildlife Consumed as Medicine in China."

Prospects:

1.We will review the legal and regulatory framework, examine the connections, loopholes and contradictions in the laws related to the indiscriminate consumption of animals, and formally submit proposals to amend the legislation on the "total ban on wildlife consumption". Meanwhile, we will review the issuance and management of permits for wildlife consumption, examine the shortcomings in their implementation, and propose a new organizational structure and social monitoring mechanism to regulate wildlife consumption.

2.We will present a scientific assessment report on the

"Prohibition of the use of artificial bred endangered and priority species for food" and a white list of animals that can be included in the "edible wildlife" list. Based on the research results, we will also carry out offline activities and produce online promotional videos or articles.

3.We will propose a list of wild animals that can be used in Chinese medicine and the name of the medicine as well as a proposal to ban priority species from being used in medicine and to strictly control the use of other wild animals in medicine. Expert seminars/media conferences will also be held to share research findings and make recommendations.

3.8 Study on the Determined Contribution of Non-state Actors to Biodiversity and Cooperation between China and Africa

Background:

The 15th Conference of the Parties to the United Nations Convention on Biological Diversity (CBD COP15), originally scheduled for October 2020 in Kunming, Yunnan, China, has also been postponed due to the sudden outbreak of the Covid-19 pandemic. According to the latest CBD COP15 update, the Conference will be held from May 17-30, 2021. CBD COP15 will define the post-2020 global biodiversity conservation framework, set new ambitious post-decade biodiversity conservation targets, and envision a global biodiversity picture for 2050. It will help achieve conservation outcomes in harmony with nature.



The Discussion Paper on the Post-2020 Global Biodiversity Conservation Framework calls for Parties and other governments to consider developing commitments to biodiversity on a voluntary basis, individually or collectively, as appropriate, depending on national circumstances. At the same time, indigenous peoples, local communities and relevant stakeholders are encouraged to actively participate in the process of developing a post-2020 global biodiversity framework to discuss and establish commitments to biodiversity conservation that will help strengthen national biodiversity strategies and action plans. It'll also contribute to the achievement of the Aichi Biodiversity Targets as a contribution to the Sharm El-Sheikh to Kunming Action Agenda for Nature and People.

Progress:

Since the end of 2019, GEI has been carrying out a global project on Determined Contribution of Non-State Subjects with the support of the Paradise International Foundation, Oxfam Beijing Office, and Rockefeller Brothers Foundation. Up to now, the project has been flexibly adjusted in line with the conference process. With the understanding and support of the project sponsors, the following work has been carried out in the areas of biodiversity conservation promotion, organizing meetings, conducting research, and building a platform for biodiversity conservation by non-state actors:

1.Tracking the latest international and domestic biodiversity progress; regularly publishing six issues of the biodiversity newsletter series (Non-State Actor Action Newsletter) and submitting them to the Ministry of Ecology and Environment.

2.Holding a series of consultation seminars for non-state actors to coordinate their positions according to the CBD negotiation process. At present, one offline domestic seminar, one online seminar; one international seminar; two China-Africa exchange and dialogue meetings, two China-Africa core working group dialogue meetings; two China-Southeast Asia platform initiating institutions dialogue seminars have been held.

3.Designing the English and Chinese versions of the "Survey on Determined Contributions of Non-State Bodies" and distributing them to the platform institutions and other regional lead institutions to collect baseline data and information on future commitments as well as to complete the study report on determined contributions.

4.Establishing the "Biodiversity Conservation Platform for Non-State Bodies". With the support of the Citizens' Coalition for Biodiversity Conser-





vation (CCBC), the platform has been launched in Africa at international action level. A regular and continuous dialogue and exchange mechanism has been formed with the support and cooperation of the local lead organization, the African Wildlife Foundation (AWF). The platform in Southeast Asia has taken shape, with 2 online seminars already held for the initiating organizations.

Prospects:

Our next step will be to keep focusing on biodiversity conservation promotion, determined contribution research, platform building, COP15 conference and parallel forums, and side events preparation.

1. We will publish a series of biodiversity briefings on a regular basis with an additional "regional section". The briefings will be promoted and published in both Chinese and English.

2. We will continue The Study on the Determined Contributions of Non-State Actors and publish the report during COP15 to show the results and future commitments of non-state actors in biodiversity conservation.

3. We will include more regional representative institutions in the "Platform for Determined Contributions from Non-State Actors". Based on the current "China-Africa Civil Biodiversity Conservation Platform" and "China-Southeast Asia Community Conservation Network Platform, we will include representative institutions from Latin America, the United States, Australia and Europe, and jointly launch the "Non-State Contribution Initiative".

4. We will, in cooperation with the Ministry of Ecology and Environment and the Citizens' Biodiversity Conservation Alliance, co-lead the NGO parallel forum during COP15 with the China Environmental Protection Foundation and the Paradise International Foundation. We will also organize side events of the forum.

The Establishment of East and Southeast Asia Community Conservation Network (EASACCN)

Progress:

1. Through our previously established relationships, we invited 11 organizations from China, Myanmar, Laos, Vietnam, Cambodia, Indonesia, the Philippines, and Thailand that are working on local protocols for conservation to become co-sponsors of the network. Before the formal establishment of the East and Southeast Asia Community Conservation Network, we produced the charter, communication mechanism, and fundraising mechanism of the platform, which served as an important documentary basis for the platform's operation. The founding organizations jointly participated in the revision of these documents and discussed them online on September 15 and October 30 respectively.



Background:

In East and Southeast Asia, there is a significant overlap between biodiversity hotspots and densely populated areas, leading to a close relationship between environmental conservation and local communities. Recognizing the importance of communities, many NGOs in East and Southeast Asia have undertaken community agreement conservation efforts to encourage community participation in conservation and provide appropriate support and guidance. However, the lack of communication and exchange between individual countries and organizations has prevented them from learning from each other's experiences and achievements, and reduced their ability to carry out their work; meanwhile, most NGOs' work is limited to demonstration projects in individual communities and has not been replicated on a larger scale, thus unable to influence national policies to promote the community agreement conservation model in environmental protection more effectively. Therefore, we hope to adopt the model of "capacity building - demonstration - policy recommendation" to first promote learning exchanges and small-scale community demonstrations among NGOs in East and Southeast Asia to improve knowledge and practice of community conservation. Secondly, under the premise of capacity building, NGOs can cooperate with government departments to expand the application scale and scope of community conservation demonstration projects. Ultimately, it will have an impact on the formulation of local community conservation-related policies and regulations.

2.Under the network, we have carried out community projects with several government departments and organizations, targeting against illegal wildlife trade, mangrove conservation and renewable energy promotion. In terms of community-based projects to fight illegal wildlife trade, we worked with the Tengchong Branch of the Baoshan Administration of the Yunnan Gaoligongshan Mountain National Reserve, the Yunshan Biodiversity Conservation and Research Center of the Dali Bai Autonomous Prefecture, and the Shangyong Reserve Administration of the Yunnan Xishuangbanna National Nature Reserve to carry out community-based projects in Shibantang, an autonomous village in Mingguang Town, Tengchong City, on the China-Myanmar border, and in Namman Village, Mengla County, Xishuangbanna Autonomous Prefecture, on the China-Lao border, respectively. Nanman Village, Xishuangbanna Autonomous Prefecture,

China-Lao border, respectively, to carry out pilot projects. For mangrove conservation, we have partnered with MFA in Myanmar and Yagasu Foundation in Indonesia to promote community-based conservation demonstration projects in Palaw, Tanintharyi region in southern Myanmar and East Java region in Indonesia, respectively. For community-based renewable energy promotion, we have collected the electricity needs of communities without electricity around the protected areas in Sagaing Division and Tanintharyi Division in Myanmar, and have been in contact with several Chinese PV companies such as Poly New Energy, Longji Green Energy and Shenzhen Chengxinnuo to explore potential cooperation on impact investment, corporate CSR donations and other business models for community-based solar PV demonstration projects in Myanmar.

Prospects:

In 2021, we will hold an online network launching meeting to officially announce the establishment of the East and Southeast Asia Community Conservation Network. We will invite members from multinational community conservation NGOs including the initiating organizations, relevant government personnel, research institutes, etc. We will also officially launch the network's bi-monthly newsletter. We plan to conduct 1-2 network member exchange meetings. We will also continue to promote the integration of the CBA conservation model with the strike against cross-border illegal wildlife trade, mangrove conservation and community-based renewable energy promotion, as a demonstration project to promote the application of CBA conservation at more levels.

Global Environmental Innovation Fund (GEIF)

"Global Environmental Innovation Fund (GEIF)" Projects The "Inspiration from Nature Sustainable Community Development Fund" Project

In 2020, GEIF continued to explore and practice innovative environmental and development mechanisms, models and solutions around the world. Through the management and operation of two special funds, we will use innovative thinking and market-based approaches to address the balance between environment and development.

4.1 "Global Environmental Innovation Fund (GEIF)" Projects

Background:

The Global Environmental Innovation Fund (GEIF) was established in February 2016 with seed funding from the Blue Moon Foundation to promote GEI's program development and support policy proposals and market-based solutions to global environmental issues. The Fund mainly focuses on energy and climate change, ecological conservation and community development, marine conservation, overseas investment and trade and environment.

In 2020, the GEIF focused on indiscriminate wildlife consumption, capacity building of NGOs in China and Southeast Asian countries to carry out community-based projects, and issues facing the development of fisheries in Myanmar, and funded three projects to address these issues.

Project Progress:

In 2020, the three projects funded by the GEIF Special Fund include:

Research on the Legal Shortcomings and Enforcement Mechanisms of the Total Ban on Wildlife Consumption

This project aims to address a series of issues related to the legislation, enforcement and supervision of indiscriminate wildlife consumption in China, and to improve the laws, regulations, enforcement and supervision system of the "comprehensive ban on wildlife consumption," to close key loopholes, and to promote a comprehensive ban on the consumption and medicinal use of endangered and nationally protected wildlife. In addition, the government should strictly prohibit the indiscriminate consumption and illegal use of other wildlife for medicinal purposes to ensure ecological and public health safety.





Enhancing NGO Capacity on Community-based Conservation and Development in China and Southeast Asia

The lack of communication between Chinese and Southeast Asian NGOs in carrying out community-based conservation projects has often revealed a lack of communication and capacity building for community-based conservation work, preventing them from working together to solve regional environmental problems through community-based conservation. This project plans to strengthen the capacity of Chinese and Southeast Asian NGOs to carry out and promote community-based conservation agreements through building a platform for capacity building in community-based conservation in China and Southeast Asia and community-based projects on conservation agreements.

3.

China-Myanmar Fisheries and Marine Wildlife Conservation Cooperation Study

The fisheries sector is of great importance to Myanmar's social and economic development. However, even though Myanmar has made many efforts to promote fisheries management and development, the country is still facing a grim reality due to constraints such as poor management, severe overfishing and poor aquaculture technology. Therefore, this project hopes to promote the cooperation between China and Myanmar in fisheries, while guiding China's fisheries to "go global" and build up the image of a strong marine country, and to provide excellent experience for Myanmar to achieve healthy and safe fisheries development, so as to realize the sustainable development of fisheries together with Southeast Asian countries and jointly promote and achieve the UN Sustainable Development Goals.



Prospects:

In 2020, the projects supported by the GEIF are steadily underway and we hope that the projects will achieve the expected results and address the issues of concern and target. the GEIF will continue to focus on forward-looking and innovative areas and projects in 2021, providing financial support for GEI to explore new areas and initiate new resources.



The "Inspiration from Nature Sustainable Community Development Fund "Project

Background:

The "Inspiration from Nature Sustainable Community Development Fund" was established in August 2018 to promote community environmental and cultural conservation in nature reserves through the establishment of an innovative model of environmental education and community development centers, and to enhance the comprehensive development capacity of communities and ultimately achieve the goal of autonomous community sustainable development. The project is dedicated to promoting the environmental and cultural conservation of communities in nature reserves through the establishment of an innovative model of environmental education and community development centers, enhancing the comprehensive development capacity of communities, and ultimately achieving the goal of autonomous and sustainable community development. The main areas of focus of the special fund are ecological conservation, community development, and cultural heritage.

In 2020, the Inspiration from Nature Sustainable Community Development Fund" continued to focus on the development of the Danba region of Ganzi Prefecture in Sichuan Province and the Sanjiangyuan region of Qinghai Province, actively seeking partners and raising external funds to support the development of projects in these two regions; at the same time, the Fund organized several expert visits to the Genie Mountain in Litang County, Sichuan Province, and launched a brand-new project in the Genie region. In total, the Fund has carried out and supported seven projects. **Project Progress:**

Zhonglu Town, Danba County, Ganzi Prefecture, Sichuan Province

The first forest school project in Tibet

Zhonglu Town, Danba County, Ganzi Prefecture, Sichuan Province, was once named the "Most Beautiful Tibetan Village in China" by National Geographic Magazine. However, with the young people gradually going out to work, it is difficult to inherit the local culture and the village is facing the dilemma of decline. To address this situation, the project plans to further improve the forest school in Danba County, Sichuan Province, and expand community development training activities and the development and practice of local curriculum to achieve the goal of sustainable local development. The project is participating in the 2019 and 2020 Tencent's "99 Charity Day," and the project's public fundraising partner is the China Red Cross Foundation.

Danba Social Enterprise Sustainability Project

In the course of carrying out the project in Danba, we learned about the urgent economic development needs of local community people and their desire not to damage local natural resources and the environment. In response to this need, the project helps to restore the soil and improve the quality and diversity of local agricultural products by encouraging local farmers to participate in eco-friendly farming methods, thereby achieving sustainable economic development; at the same time, the direct output of the project (lavender products) helps to raise awareness of soil health and ecological restoration among urban residents. In the future, the project's related farming practices and product production processes will be produced as educational materials to be shared among the local community and the public. The project has received financial support from the Swiss Embassy in Beijing.

Danba Middle Road Water Source Protection Project

In response to the current problems of agricultural pollution, domestic sewage, deforestation of water source protection forests and weak environmental awareness at the Middle Road Township water source, this project hopes to establish a demonstration of water source protection, harness the momentum of local tourism development and promote water source The project hopes to establish a demonstration of water source protection, use the momentum of local tourism development, and promote communication and consultation mechanisms between multiple interest groups in water source protection, in order to achieve the goal of multi-party cooperation in protecting rural water sources. The project is supported by Yunnan Green Development Foundation and Shanghai Rongdao Nature Conservation and Sustainable Development Center.

Highland native plant exhibition hall and community environmental education demonstration project

In order to promote the sustainable development of Danba Zhonglu Township, the project started with community-based ecological education, establishing a "plant exhibition hall (classroom)" with native species in the local community, and providing local children with the opportunity to learn more about plants. The project aims to promote sustainable development in Danba Middle Township through community-based ecological education, establishing a "plant showroom (classroom)" in the local community with native species, and providing ecological education activities to local children so that they can better understand the natural resources of their hometown, build cultural confidence, and encourage them to stay in the countryside to protect the natural resources of their hometown. At the same time, we hope that by establishing a community native plant showroom and an eco-environmental education program, we can establish a demonstration in the Highland Reserve and replicate it to other reserves to promote sustainable development in the reserve. This project is financially supported by the Beijing Representative Office of Winrock International Institute for Agricultural Development Center (USA).

Sanjiangyuan Conservation Area, Qinghai Province

Research and Policy Promotion of Mount Genie National Park Path

Genie Mountain is located in the western part of Ganzi Tibetan Autonomous Prefecture, Sichuan Province, China, in the heart of the Hengduan Mountains and the eastern edge of the Tibetan Plateau. The tourism plan of Genie Mountain includes Litang County, and clearly sets out the strategic goal of establishing Mount Gnip as an international first-class mountain tourism destination and striving to create a national park. Despite such goals and expectations, the local government and relevant departments are unclear about the specific path of how to make Genie Mountain a national park. Therefore, the project will invite national park policy research experts and institutions to form a "Research and Policy Promotion of Mount Genie National Park Path" to assist the Litang County Government and the Genie Mountain Scenic Area Management Committee to understand national park policies and clarify the pathway of national park construction through cross-border cooperation and research, so as to promote the national park declaration from the county level to the state level and then to the provincial level. national park declaration action. The project is supported by non-restricted funds from the Divisional Nature Fund.

Prospect:

Since its inception, the Master Nature Special Fund has been dedicated to ecological conservation, community development and cultural heritage in areas of concern. Currently, the Foundation supports projects in three regions: Danba County, Ganzi Prefecture, Sichuan Province; Sanjiangyuan Region, Qinghai Province; and Genie Mountain, Ganzi Prefecture. Sichuan Province. Through the projects, we hope to help these regions eventually achieve the goal of autonomous and sustainable community development.

Plateau Vegetable Shed Project

In order to solve the problem of the plateau herders' difficulty in eating vegetables, this project improves the local nutritional status through the technical promotion and training of vegetable shed, so that the herders in the Sanjiangyuan region can understand the cultivation techniques and healthy green living concepts. At the same time, the project particularly emphasizes the importance of reducing waste generation at the source of the Sanjiang River and promoting community action for ecological protection. Currently, the project participates in Tencent's "99 Charity Day," and the public fundraising partner is Shanghai United Way Public Welfare Foundation; in 2020, the project also receives support from Shanghai State Peak Charity Foundation and Zhejiang Smile Tomorrow Foundation.

Love Building Nature Classroom Project

This project aims to use traditional cultural and educational activities as a carrier to establish an environmental education center - nature classroom in Deja. The project hopes to establish a base and place for local children to learn local culture and traditional wisdom by linking up with local rural elementary school, and to form a protected area of "community + school + herding families + foreign volunteers" and "expert linkage" through the establishment of the nature classroom. Through the establishment of the nature classroom, a "community + school + herding families + foreign volunteers" and "expert linkage" model of ecological and environmental education is formed, so that more children can learn about their hometowns and participate in guarding their natural environment. This project is supported by the China Charities Aid Foundation for Children.

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5.1

Fishing Gear Optimization and Environmental Awareness Enhancement for Fisherman

Marine Conservation

Fishing Gear Optimization and Environmental Awareness Enhancement for Fisherman

The China-ASEAN Mangrove Conservation Sea Turtle Conservation

5

Background:

Currently, about 34.2% of global fisheries resources are overexploited due to unsustainable and unmanaged fishing activities. As the world's largest marine fishing country, China has about 1,625,250 people working in the fishing industry. However, the depletion of China's offshore fishery resources has left its fisheries in crisis, and the unsustainable and destructive fishing practices of fishermen have led to the deterioration of fishery resources. Seafood is a source of protein for more than 1 billion people worldwide, and as the global population continues to grow and human demand for food increases, promoting sustainable fisheries has become an urgent task for all countries. In promoting sustainable fisheries development, more and more attention is being paid to the bycatch of endangered marine animals such as whale sharks, sea turtles and seabirds during fishing operations. These species play a pivotal role in maintaining fishery populations and ocean health and protecting biodiversity. Therefore, how to optimize fishing gear to reduce the accidental catch of marine life in fishing operations is an important part of the sustainable fishery issue.

To this end, GEI hopes to provide reference for the optimization of China's fishing gear and promote its development by conducting research, analysis and practice at home and abroad, so as to help the sustainable development of fisheries; at the same time, it also hopes to make fishermen understand more about the ocean and protect our ocean through a diversified series of training.

Project Progress:

The Study of Domestic and Foreign Fishing Gear Optimization Based on the content of different fishing gear fishing methods, we completed the research, optimization and summary of domestic and foreign eco-friendly fishing gear fishing methods, including trawl, gill net, seine, spread net, fishing gear and cage pot, etc., and summarized the experience on how to reduce by-catch of various types of gear, providing basic support for China to carry out research on optimization of fishing gear.

Environmental Awareness Enhancement for Fishermen

In response to the current environmental problems that may be involved in fisheries management and fishermen's fishing operations, a series of manuals on environmental awareness for fishermen were prepared to convey the concept of sustainable fisheries management to fishermen in terms of types of fishing gear, permitted and prohibited fishing gear and the negative impact of ghost fishing gear. The training was carried out for frontline fishermen communities in the Yellow and Bohai Seas, the South China Sea and other waters, with 103 attendances.

The Study of China's Abandoned Fishing Gear

China is the world's largest country in the production and use of fishing gear, but there is still no domestic scientific research institution that has conducted specific research on the status of abandoned fishing gear in China. Therefore, based on different methods, we understand and summarize the current situation of the use and abandonment of fishing gear in my country, and form recommendations for future actions related to abandoned fishing gear.

Prospects:

In the future, GEI hopes to provide support for the management and reform of Chinese fishing gear and fishing law through the follow-up research and practice of fishing gear optimization and the innovative exploration of the recycling of discarded fishing gear, so that future generations can continue to enjoy the benefits brought by the ocean.

5.2 The China-ASEAN Mangrove Conservation

Background:

Mangroves are one of the most important wetland ecosystems on the planet and also one of the natural solutions for the oceans to global climate change. They can combine synergistic effects in multiple areas such as maintaining biodiversity, adapting and mitigating climate change, as well as protecting the rights of local people, developing local economies and promoting employment. The China-ASEAN region is one of the most important regions in the world in terms of mangrove distribution, accounting for about 42% of the world's area. Mangroves are an important resource for the livelihoods of many coastal residents in the region, affecting all aspects of fisheries, food security and nutrition, and livelihoods. Currently, five of the top 20 countries in terms of mangrove area are located in Southeast Asia. Indonesia alone is home to about 21% of the world's mangroves. However, the global mangrove area is declining at a rate of 21,200 hectares per year. Mangrove forests in ASEAN countries are also degrading at rates ranging from 0.25-20% per year. How to slow down the loss and degradation of mangroves in Southeast Asia? How to carry out mangrove restoration in a scientific way? And how can we sustain the well-being of people who depend on mangroves for their survival? We hope to find the answers through the China-ASEAN Mangrove Conservation Project.

Project Progress:

Based on the work done in 2019, GEI continues to promote China-ASEAN mangrove conservation.

1. Actively gather the forces of all parties to jointly protect the regional mangroves. We cooperated with the "Global Action on Climate Change" to complete the "Concept Book of Building a China-ASEAN Regional Mangrove Conservation Partnership" and submit it to government agencies. At the same time, we also actively communicated with Southeast Asian mangrove countries, and initially obtained the verbal cooperation intentions of Indonesia, Myanmar and Thailand to participate in mangrove protection.

2. Continue to carry out in-depth groundwork research. Based on the completed regional mangrove conservation profile, we will continue to conduct in-depth analysis of the current status of regional mangroves in cooperation with NGOs and research institutes to clarify the future conservation space and direction and provide support for exploring the possibility of future multi-party cooperation.

3. Explore the model of community participation in mangrove protection. GEI has partnered with Myanmar Forest Association and Yagasu Foundation to carry out community participation in mangrove conservation in Palaw, Tanintharyi, southern Myanmar, and Dringu and Tangsi communities in East Java, Indonesia. GEI is working with these institutions to promote community participation in mangrove conservation and restoration and to support communities in developing sustainable livelihoods.

4. Strengthen communication and cooperation. We have continued to carry out our conservation exchanges with National Center for Climate Change Strategy and International Cooperation, ASEAN-China Center, China-ASEAN Environmental Cooperation Center, Third Institute of Oceanography, Ministry of Natural Resources, Green Climate Fund and other institutions. We also participated in the "Nature-based Solutions for Climate Change Collaboration Platform" workshop hosted by the Institute of Climate Change and Sustainable Development of Tsinghua University. Over 1000 people joined the workshop, in which "Mangrove Ecosystem-based Solutions to Promote China-ASEAN Cooperation to Address Climate Change" was shared, and the awareness of regional mangrove conservation was promoted.

Prospects:

In the future, GEI hopes to build a China-ASEAN regional mangrove protection partnership and build a China-ASEAN mangrove ecological corridor through joint efforts with multiple parties. Through regional cooperation, we will prevent mangrove fragmentation, maintain ecological security and provide mangrove ecosystem-based solutions to climate change in the region and globally.

5.3 Sea Turtle Conservation

Background:

Sea turtles are the largest reptiles in the marine world, a species from the same era as dinosaurs, and are known as one of the world's oldest creatures. Five of the seven species of sea turtles in the world are currently distributed in China, namely the loggerhead sea turtle (Caretta caretta), the green sea turtle (Chelonia mydas), the hawksbill turtle (Eretmochelys imbricata), the Pacific leatherback turtle (Lepidochelys olivacea) and the leatherback turtle (Dermochelys coriacea), of which the green turtle is the most abundant. However, sea turtles are currently facing habitat decline and population declines in nesting grounds, marine litter and pollution, accidental capture and climate change, so GEI hopes to work with partners to implement on-the-ground conservation initiatives ranging from community involvement in sea turtle conservation to information collection on sea turtle bycatch and training for fishermen.

Project Progress:

As a member of the China Sea Turtle Conservation Alliance and its deputy director unit, GEI has been committed to promoting the protection of China's sea turtles. 2020's major efforts included:

1. Cooperated with China Sea Turtle Conservation Alliance and SEE Foundation to develop and complete the preliminary test version of the Chinese sea turtle accidental catch/rescue information collection program, which is used to collect information on sea turtle bycatch/rescue in China and know the situation of sea turtle bycatch/rescue in the long term.

2. In Qilianyu, Xisha Islands, Hainan, where the largest surviving green sea turtle spawning site in my country, we completed the feasibility study of community co-management of sea turtle protection in cooperation with local government.

3. Training on sea turtle life history and sea turtle identification was conducted for coastal fishermen in the Yellow and Bohai Seas, the East China Sea and the South China Sea, so that fishermen could better understand the importance of sea turtles to the ecological environment and the important relationship with human.

Prospects:

In the future, GEI hopes to enhance community participation in the conservation of sea turtles through community co-management and explore how to protect the important nesting grounds of green sea turtle in China through a model of cooperation with communities. At the same time, we will also continue to promote the mini program of data collection, in terms of accidental capture/rescue of sea turtles, so as to realize data sharing and provide data support for the government to carry out actions for important migration sites and habitat protection of sea turtles.

2020 Annual Financial Report

January 1, 2020 - December 31, 2020 (unit: RMB)			
Income	Unrestricted	Restricted	Total
Donations	22,907,435.62	0	22,907,435.62
Services	369,990.00	0	369,990.00
Other	285,857.99	0	285,857.99
Total	23,563,283.61	0	23,563,283.61
Expenditures	Unrestricted	Restricted	Total
Operating Costs	16,944,399.76	0	16,944,399.76
Other Expenses	2,400,951.62	0	2,400,951.62
Total	19,345,351.38	0	19,345,351.38
Change in Net Assets	4,217,932.23	0	4,217,932.23

Business Activities

Balance Sheet

January 1, 2020 – December 31, 2020

Assets	Beginning of Year 1/1/2020	End of Year 12/31/2020
Current Assets	63,959,240.50	68,264,754.11
Fixed Assets	162,966.43	110,560.41
Total Assets	64,122,206.93	68,375,314.52
Liabilities		
Current Liabilities	101,274.85	136,450.21
Long-term Liabilities	0	0
Total Liabilities	101,274.85	136,450.21
Net Assets		
Unrestricted Assets	64,020,932.08	68,238,864.31
Restricted Assets	0	0
Total Net Assets	64,020,932.08	68,238,864.31
Total Liabilities & Net Assets	64,122,206.93	68,375,314.52